DEPARTMENT OF THE INTERIOR

Fish and Wildlife Service

50 CFR Part 17

RIN 1018-AB38

Endangered and Threatened Wildlife and Plants; Withdrawal of Proposed Rule to List the Plant Salpingostylis coelestina (Bartram's Ixia) as Endangered

AGENCY: Fish and Wildlife Service, Interior.

ACTION: Proposed rule; notice of withdrawal.

SUMMARY: The Service gives notice of the withdrawal of the proposed regulation to list *Salpingostylis coelestina* (Bartram's ixia) as endangered, pursuant to the Endangered Species Act of 1973, as amended. This plant occurs in grassy pinelands, planted pine forests, and road and powerline rights-of-way in seven counties in northeastern Florida. Based on evaluation of data available following publication of the proposal and evaluation of comments, the Service has determined that listing of Bartram's ixia is not warranted at the present time, although urbanization of its habitat, if not accompanied by appropriate conservation measures, may require its listing in the foreseeable future. The

Service expects to work with the forest products industry to monitor the status of this plant in commercial forest lands.

ADDRESSES: The complete file for this action is available for inspection, by appointment, during normal business hours at the Jacksonville Field Office, U.S. Fish and Wildlife Service, 3100 , University Boulevard South, Suite 120, Jacksonville, Florida 32216 (904/791-2580 or FTS 946-2580).

FOR FURTHER INFORMATION CONTACT: David J. Wesley, Field Supervisor, at the above address.

SUPPLEMENTARY INFORMATION:

Background

Salpingostylis coelestina (Bartram's ixia) is a grassy-leafed herb belonging to the iris family (Iridaceae). This plant was first collected, illustrated, and described by William Bartram as *Ixea caelestina* (Harper 1959, pp. 98, 99, 360). Small (1931) created a new genus, *Salpingostylis*, for this plant. Foster (1945) and Goldblatt (1975) assigned the plant to the genus *Sphenostigma*, but since then, for nomenclatural reasons, the name *Sphenostigma* can no longer be applied to Bartram's ixia (R. Goldblatt, Missouri Botanical Garden, St. Louis, *in litt.* July 1988). Until the taxonomy of this part of the iris family is clarified. Small's name, *Salpingostylis coelestina*, may be used.

Salpingostylis coelestina is a perennial herb about 30 centimeters (1 foot) tall. The bulb is dark brown with a papery coating. The basal leaves are narrowly linear, 20-30 centimeters long. The flower stalk (scape) rises from the ground and has a spathe with one or two flowers, which are 5 centimeters (2 inches) across, usually opening at dawn (by 9 a.m. on a cool morning), and withering by 11 a.m. (later on a cloudy day). The flowers are violet when they open, fading to blue-lavender before they wilt. Flowering may start as early as April, peaks sharply near Memorial Day, and continues through July. Sporadic flowering may occur as late as early November in response to fire or site disturbance (Ward 1979: Goldblatt 1975: Martin 1989; M. Peacock, *pers. comm.* 1988; E. Geiger, consulting forester, Jacksonville, *pers. comm.* 1989: other foresters, *pers. comm.* 1989).

Bartram's ixia is native to flatwoods with an understory of wiregrass, other grasses, herbs, and low shrubs (but not palmetto thickets). The understory burns readily, and frequent understory fires are characteristic of flatwoods (Clewell 1986). In the past 30 years, a majority of the pine timberland in Baker, Bradford, Clay, Putnam, and St. Johns Counties have been converted to planted stands (USDA Forest Service, Southeastern Forest Experiment Station, Forest Inventory and Analysis. Forest Information Retrieval runs; 1987 inventory data. Data obtained by ITT Rayonier Inc.). A large portion of the known range of the ixia is on land owned or managed by the forest industry.

In flatwoods managed for cattle grazing, as well as in planted pine managed for pulpwood, Bartram's ixia flowers the spring after a fire, but not in subsequent years. At clearcut and replanted pine plantations, large numbers of ixia flowers have been observed in bare, disturbed ground, with abundant flowering for at least two or three years after cutting. Smaller numbers of flowers have been observed in recently-plowed fire breaks (Martin 1989, Rayonier 1990, other data submitted by the forest companies). The plants are conspicuous only in flower.

Murrill (1940) and others worked out the ixia's general distribution; recent surveys provided detailed information. Its range is: Duval County between the St. Johns River and Cecil Field near Ed White High School and Herlong Field, and near the Clay County line; Mandarin near Julington Creek: St. Johns County north of Tocoi Creek and west of Twelvemile Swamp; Clay County excluding Trail Ridge and the lake area around Keystone Heights; Putnam County from State Road 100 northward and east of Georges Lake; Bradford County between Starke, Lawtey, and Florida State Prison, and north of Santa Fe Swamp; Baker County south of county road 130, west of New River Swamp, and east of county road 229; Northeastern Union County (Martin 1989; Peacock and Peacock 1989; ITT Rayonier, Georgia-Pacific, and Southwood Realty, *in litt.* 1989 and 1990; Union Camp, Nekoosa Packaging, and Jefferson Smurfit & Container Corporation of America, *pers. comm.* 1990). This range covers approximately 550 square miles.

The ixia has been reported to occur elsewhere. Foster (1945) cited Francis Harper's opinion that Bartram had collected the ixia at Kanapaha Prairie, Alachua County. Foster saw a specimen from "Duval or Nassau County: near Thomas Creek, branch of the Nassau River". The plant may also occur near East Palatka (E. Matthews, Bradford Telegraph, Starke, Florida, *pers. comm.* 1990).

Bartram's ixia usually occurs on poorly drained soils. Such soils may be within a few yards of excessively drained sites with bluejack oak. At one site with intact native vegetation, the ixia is restricted to the grassy margins of shallow depressions, where it occurs with wiregrass (*Aristida stricta*), purple pitcher plant (*Sarracenia purpurea*), and *Aletris*. Murrill (1940) described the plant as growing in and beyond the slash pines at the edges of flatwoods ponds, with the plants mentioned above as well as *Asclepias michauxii, Hypoxis juncea*, and *Psoralea virgata*. Bartram's ixia occurs along the grassy edges of rights-of-way of paved roads, usually with *Aletris, Calopogon* orchids, and in Clay County, *Rudbeckia nitida*, a coneflower (Martin 1989; Peacock and Peacock 1988).

Herbarium specimens and observations (Murrill 1940, Ward 1979, Wunderlin et al. 1980) indicate that flowering populations of Bartram's ixia have become less easy to find as pine flatwoods have been converted to pine plantations, and as the frequency of burning apparently declined. Some site preparation methods associated with forestry (bulldozing, root raking, bedding, chopping) are likely to destroy or damage Bartram's ixia bulbs (Kral 1983) even though such disturbance stimulates surviving bulbs to flower. The shady conditions of maturing pine plantations may be unfavorable to the ixia. This is the case for other understory pineland plants; which persist under the first planted stand of pines, but become less important or disappear in subsequent rotations (Clewell 1986). It is possible that Bartram's ixia plants flowering in cutover areas produce enough seedlings to replace any individuals destroyed by logging and site preparation, or that died due to excessive shade. Data on the demography of this species through the cycle of tree harvest, site preparation, replanting, and regeneration would be of great value for understanding the conservation needs of this species and possibly species with similar life histories, such as *Nemastylis floridana* (fall ixia) and possibly *Zephyranthes* (Atamasco lilies).

Stand history information provided by ITT Rayonier (*in litt.* 1990) shows that the ixia flowers in abundance when the first stand of pines to be planted on a site (usually planted in the early 1960s, sometimes earlier) is harvested. Most of these plantations had been control burned every 3 to 5 years; at least some stands had abundant wiregrass. In Clay and Baker Counties, large numbers of flowering ixia plants have been observed on sites where pine plantations had recently been harvested. The abundance of Bartram's ixia in commercial forest land at the present time indicates that any threat to this species from forest management

practices is long-term rather than immediate. The Service expects to work with the forest industry to develop a program for monitoring the demography of Bartram's ixia in commercial forest land.

The Service published a proposal to list Bartram's ixia as endangered (**Federal Register**, May 19, 1989; 54 FR 21632) based on information available in 1980, augmented by data gathered in 1987 and 1988 (Martin 1989, Peacock and Peacock 1988). In response to several requests, a public hearing was held on August 3, 1989 (54 FR 29915). The comment period on the proposal was subsequently reopened until July 2, 1990 (55 FR 6660) to allow private landowners to collect additional data on the ixia's distribution and abundance during its 1990 flowering season. The deadline for publishing a final listing decision was extended in the same **Federal Register** notice to November 19, 1990.

Summary of Comments and Recommendations

In the May 19 proposed rule and associated notifications, all interested parties were requested to submit factual reports or information that might contribute to the development of a final rule. Appropriate state agencies, county governments, Federal agencies, scientific organizations, and other interested parties were contacted and requested to comment. Newspaper notices were published in the *Bradford County Telegraph*, June 1, 1989; the *Florida Times-Union*, Jacksonville, June 3, 1989; the *St. Augustine Record*, June 3, 1989; and the *Palatka Daily News*, June 8, 1989. A public hearing was held on August 3, 1989 (advertised in the *Florida Times-Union*, July 16, 1989), and the proposed rule's comment period was extended on request of the forest products industry, which desired sufficient time to collect field data on this species (advertised in the *Florida Times-Union* April 23, 1990).

The public hearing was attended by a total of 38 persons. Of the 10 who made statements, 8 were opposed to listing Bartram's ixia or were critical of the proposal, 1 was neutral, and 1 was in favor of listing.

Thirty-three letters or telephone calls commented on the proposal or provided information. The Florida Department of Agriculture and Consumer Services, the Florida Natural Areas Inventory, and a county commissioner supported the proposal, along with 12 letters from individuals or garden clubs. One member of Congress expressed concern over the proposal; two other members forwarded concerns of constituents or others for response by the Service, as did a member of the Florida legislature. Four forest products companies or their subsidiaries, and one environmental consulting firm opposed listing the plant, as did the Florida Forestry Association and a county timber growers association. Six letters supplied information but did not have an opinion on whether to list the plant. In addition, five forest products companies and a county forester submitted data on the ixia's distribution collected during the 1990 flowering season.

Specific issues raised by the comments are listed below with the Service's response to each:

Issue 1: The proposal is based on inadequate surveys that failed to search outside the previously known range of Bartram's ixia and missed extensive private lands within the known range. Large populations may exist in 1.6 million acres of commercial timberland in the six-county range. At least several populations may comprise over 50,000 individuals. Private studies indicate that the Service underestimated the number and size of ixia populations. For example, one company's forest managers located 12 additional sites in 4 days by examining recently disturbed areas. One comment asked why the Service proceeded to propose to list the ixia after so many years of delay, when "sound scientific methodology and responsibility to the public requires a better inventory prior to listing"?

Service response: The general range of Bartram's ixia was reliably known before the latest surveys began, due to work by botanists since about 1908 (Murrill 1940). New surveys relocated known sites, then searched nearby, similar areas. Martin (1989) covered about 1800 miles of road on 25 days and Peacock and Peacock (1988) covered about 1000 miles of road. The effectiveness of these surveys is confirmed by independent surveys conducted by the forest products industry in 1990; the most important discovery by these surveys was rediscovery of ixia sites north of Santa Fe Swamp in Bradford County. The Service did not attempt to estimate the number of ixia populations; the proposed rule described the extent of the plant's range and noted the existence of at least one large population in a recently-harvested commercial forest land. The Service appreciates the forest product industry's reports of additional sites. The Service proposed to list Bartram's ixia as soon as it considered adequate scientific data to be available.

Issue 2: The proposed rule is contrary to the conclusions of an independent survey funded by the State (Florida Natural Areas Inventory (FNAI)) (Peacock and Peacock 1988, and public hearing comment by Marsha Peacock that there is not enough information on the ixia).

Service response: The proposed rule stated that not all populations of the plant are known, in keeping with the Peacocks' conclusions. The FNAI supported listing of the plant.

Issue 3: The Peacocks' survey found 22 sites in 11 days, while only 12 sites were recorded in the scientific literature, and they saw more of the plant than anyone else.

Service response: The Peacocks attempted to visit the 12 sites in the FNAI database. They also had access to other, older, herbarium records and Martin's 1987 results (Martin 1989). Murrill (1940) and his contemporaries probably saw very large flowering populations of this plant.

Issue 4: The Service has no evidence that the suitable habitat for Bartram's ixia is significantly shrinking or that the number of ixia plants has declined since the 1700s.

Service response: Murrill (1940) provides circumstantial evidence that the ixia was formerly much more conspicuous and probably more abundant in the Starke area. Ward (1979) mentioned destruction of a large population near Starke. Urban expansion in westside Jacksonville, northeastern Clay County, and northwestern St. Johns County is obviously destroying ixia habitat. The preparation of complex, costly applications for Developments of Regional Impact by large landowners in the plant's range provides evidence that these large development projects are expected to generate greater profits than pulpwood.

Issue 5: The ixia's range is unverified, as shown by a discrepancy about its occurrence in Union County between the proposed rule and Ward (1979) as well as a newspaper legal advertisement for the public hearing.

Service response: Herbarium specimens of ixia had been collected in Union County near its border with Baker County, but Martin did not find the plant there. A comment on the proposal confirmed that the plant still occurs in Union County.

Issue 6: Power line and road rights-of-way may protect adequate habitat for Bartram's ixia.

Service response: Rural power lines and some road rights-of-way are valuable habitat for many pineland plant species, and management of these areas offers opportunities to conserve

the flora, including Bartram's ixia. The Service is concerned that road widening, construction of underground utilities, herbicide use, and urbanization adjacent to rights-of-way can destroy the native flora.

Issue 7: The ixia stays dormant for as long as 20 years, and is frequently found in second rotation plantations. Documentation was provided by the commenting forest products company.

Service response: Most sites for which data were presented were first-generation plantations, but the prospects for the ixia persisting in second-rotation plantations appear good.

Issue 8: Several comments disagreed with statements in the proposal and a newspaper notice, that the listing would have little or no effect on state or county agencies, or the activities of private citizens on their own land. The comments asserted that the Federal Government's links with states and private citizens result in mandates to not jeopardize listed species for activities such as road and culvert construction, placement of utilities in public rights-of-way, federal loan guarantees, and herbicide applications. Because most populations of Bartram's ixia are on private lands, the burden of this regulation will fall on private landowners. Another comment cited, as an example of the true implications of listing the plant, comments by the Service's Jacksonville Field Office, submitted to the Regional Planning Council, on an application for a Development of Regional Impact. The comments recommended on-site or off-site conservation measures for the ixia.

Service response: Federal activities, including permits, that might affect endangered or threatened plants are regulated through the consultation process of section 7 of the Endangered Species Act. Federal activities or permits rarely jeopardize the continued existence of a plant species, so section 7 is rarely invoked to protect plants. It is not known at this point whether listing would affect routine herbicide use in forestry. Federal listing of endangered and threatened species is intended to encourage conservation actions by state and local governments; such conservation actions are undertaken within the scope of their own authority.

Issue 9: Until a management plan is jointly developed and reviewed by the Service and private landowners, neither can determine the effects of proposed listing. Two comments stated that the Service cannot prepare a site-specific recovery plan with the available information, so if the plant is listed now, any protection to be gained through recovery planning is illusory. Therefore, the Service should gather sufficient information to plan the plant's recovery before proposing to list it.

Service response: The Endangered Species Act requires that species be listed as endangered or threatened based on the best scientific data available, when the data are sufficient to show that listing is warranted. The Act does not require that sufficient data be available to plan recovery. Before a recovery plan is approved, the Service must provide public notice and an opportunity for public review and comment.

Issue 10: The ixia's biology needs to be better understood so habitat requirements can be defined. The ixia's response to disturbance needs to be better understood. Present forest management practices, such as control burning and site preparation may encourage the plant. At least two comments pointed out that prescribed burning of pinelands, which is likely to be encouraged by any recovery plan, is inhibited by landowners concerns over liability. One forest products company offered assistance to install field trials to evaluate effects of various silvicultural activities on plant survival and reproduction.

Service response: The ixia's persistence in pine plantations is the main reason for withdrawing the proposal; the Service concurs that there is a need to better understand the response of the plant to management practices. Field trials could be quite valuable. The Service is encouraged that the 1990 Florida legislature addressed the problem of landowner liability for prescribed fire. The Service notes, however, that the threat of urbanization may in the future require listing, regardless of its status in privately owned forest land.

Issue 11: How would private landowners be regulated if the ixia is listed? Since the plant can lay dormant, how will it be determined whether land may be developed without first either burning it or turning over the soils? How would a purchaser of land be protected, without knowing if the plant exists on the property? Which agency is responsible for construction permitting and development?

Service response: Permits for development of land with endangered or threatened plants are almost always a local or state matter for land with endangered or threatened plants, because the Endangered Species Act does not prohibit take of endangered or threatened plants on private land. If a plant is listed and a construction project requires a Corps of Engineers dredge and fill permit, then consideration of the effects of the project on listed plants would be required. A Florida State government agency has considered requiring applicants for permission to build large projects to effectively inventory their land for Bartram's ixia by burning or disturbing suitable ixia habitat before searching for flowers; such a requirement is being considered under the State's authority.

Issue 12: The proposal cited no authoritative surveys or statistics to indicate that urban sprawl will reach into most of the six county range (in excess of 5 million acres) within the remotely foreseeable future; an economic slowdown means no major habitat destruction within the coming year. Ward (1979) suggested that the largest populations are in Bradford and Clay Counties, where the urbanization threat is minimal.

Service response: The Service reviews applications for Developments of Regional Impact (DRIs); statements in the proposal about such applications reflect Service review, although newspaper stories are referenced. Applicants for DRIs are unlikely to go through the considerable cost of application unless they expect the projects to materialize. The listing proposal relied on estimates of future population growth prepared by the University of Florida Bureau of Economic and Business Research and published annually in *Florida Trend* magazine. The Service notes that considerable ixia habitat appears to already have been destroyed, as stated in the proposal. The comment overstates the size of the known range of the ixia by an order of magnitude (see "Background" section).

Issue 13: Overutilization is not a problem because cultivated plants have survived well. The plant is not affected by natural disaster or disease because it has survived in its range since Bartram.

Service response: The Service concurs, but notes that the ability of a plant to thrive in cultivation has no relation to its status in the wild.

Issue 14: The proposal lacked an economic impact analysis.

Service response: Economic analysis is required only when critical habitat is proposed.

Issue 15: The proposed rule and newspaper legal advertisements of it are inaccurate, legally insufficient, and misleading; as such, they are arbitrary and capricious. The inaccuracies will render any subsequent rule invalid. Misleading statements include those minimizing the effect of listing on private landowners, because the plant occurs only on private property and

recovery programs would of necessity impact private landowners. The public cannot be put on meaningful notice unless the Service includes a detailed plan for recovery or other activities.

Service response: The Service considers the proposal and its advertisements to be accurate and sufficient, for reasons described above, particularly under issue 8.

Issue 16: The proposal is invalid because the Service lacks the authority to list species without a proper petition. The Smithsonian report was not an adequate petition, and even if it were, the Service had abrogated its validity by failing to follow its own timetables and procedures.

Service response: The Endangered Species Act does not require a petition as a precondition for listing. Nevertheless, the Service's handling of the 1975 Smithsonian report satisfies the petition requirements of the Endangered Species Act.

Issue 17: A plant conservation organization pointed out results of their survey of U.S. botanists which indicated that this is one of some 700 United States plant taxa that could become extinct within the next 10 years in the absence of conservation efforts such as listing.

Service response: The poll was useful for identifying which species need attention, but recently collected field data and firsthand observation of this plant are more reliable for determining whether to list this particular species.

Issue 18: The amount of ixia is decreasing rapidly in northwest St. Johns County south to State Road 210, and the plant is expected to completely disappear from this area within ten years. Similar commercial and residential development elsewhere in the range of this plant will destroy habitat and eliminate populations of this plant.

Service response: The Service expects that substantial populations of Bartram's ixia will remain in this area ten years from now, but the outlook for the longer term is unknown. Considerable habitat currently occupied by this plant in this county can be destroyed before it is threatened with extinction.

Issue 19: Dramatic changes in forestry practices such as plantation development, mechanical harvest, site preparation and associated disruption of natural fire cycles in these flatwoods communities will have long-term implications to the survival of Bartram's ixia. It is evident that continued mechanical ground disturbances may eliminate or detrimentally affect this species.

Service response: Commercial forestry practices probably are not especially favorable for this plant, but so far it has persisted under such practices.

Issue 20: Bartram's ixia does not occur on protected sites.

Service response: The Service concurs, but is hopeful that the State or the St. Johns Water Management District may purchase habitat and that management of the State's Camp Blanding may protect the plant.

Issue 21: Because Bartram's ixia is difficult to find unless it is flowering, and is inconspicuous most of the time, the presence of this species is probably undetected in environmental reviews of lands in this area. It is likely that Bartram's ixia is declining faster than we can estimate given the changes in the landscape within the range of this species.

Service response: Data provided by several major landowners, as well as data that may be obtained through a monitoring program may prove useful in the future for evaluating the status of this plant and the need for conservation measures for developments.

Summary of Factors Affecting the Species

The Endangered Species Act and implementing regulations found at 50 CFR 424.17(3) provide the basis for determining a species to be endangered or threatened and for withdrawing a proposed rule when the proposal has not been found to be supported by available evidence. The five factors described in section 4(a)(1) of the Endangered Species Act, as they apply to the withdrawal of the proposed listing of *Salpingostylis coelestina*, are as follows:

A. *The present or threatened destruction, modification, or curtailment of its habitat or range.* Bartram's ixia is restricted to a limited part of northeastern Florida. In the past 30 years, a majority of the flatwoods in Baker, Bradford, Clay, Putnam, and St. Johns Counties have been converted to pine plantations, with densely planted slash pine. The relative ease of finding large numbers of flowering Bartram's ixia in clearcut and/or freshly replanted pine plantations shows that the plant persists in large numbers under the first crop of pines and can survive site preparation, including chopping and bedding, in large numbers. If Bartram's ixia reproduces abundantly by seed in clearcut/replanting sites (which appears likely, based on casual observation), and if the ixia plants persist to flower either after fire or after the next tree cutting, the ixia may remain relatively secure in such habitats. Threats to the plant from continued timber management might become evident in another 15 to 30 years as the second-crop plantations are harvested.

Some sites that once had populations of Bartram's ixia have been converted to pastures, where the plants may persist, depending on management, or to miscellaneous land uses. Near Starke, a junkyard displaced a well known ixia site (Wunderlin et al. 1980).

Growth of the Jacksonville metropolitan area threatens Bartram's ixia. The plant occurs in the Mandarin section of Jacksonville (Duval County), where it was reported in 1960 and confirmed in 1988 and 1989, but Mandarin is now almost entirely a residential area. In northwestern St. Johns County south of Jacksonville, Bartram's ixia is abundant along roads, in power line rights-of-way, and in pinelands, but in this area, four proposed residential/mixed use developments were large enough to require approval as Florida Developments of Regional Impact (DRIs). These proposals covered much of the known ixia habitat in St. Johns County (allowance must be made for the fact that DRI areas have been searched for the ixia, and some other areas have not). These projects were proposed to house as many as 143,000 people within 20 years (Florida Times-Union, Jacksonville, August 21, 1988; the Service's Jacksonville Field Office reviewed applications for these projects). After the proposal to list this species was published, applications for two developments were dropped, at least temporarily, and the builder of an approved DRI experienced financial difficulties.

The ixia is locally abundant, and is probably widespread, in southern Clay and northern Putnam Counties. Clay County's human population is estimated to have increased from 72,000 in 1984 to 102,800 in 1990 (Moire 1988, Willson 1990. Estimates are by University of Florida Bureau of Economic and Business Research). After the comment period for the ixia proposal had closed, Union Camp Corporation announced plans to develop its nearly 90 square miles of land in Clay and Putnam Counties over a 50-year period (Gainesville Sun, July 18; Florida Times-Union, July 25, July 27, 1990). A proposed Jacksonville outer beltway through St. Johns and Clay Counties may encourage real estate development. The status of Bartram's ixia on Camp Blanding is not known at the present time. Prospective changes in the Camp's forestry practices to favor red-cockaded woodpeckers may also have the effect of conserving the

native flora, perhaps including Bartram's ixia. The State of Florida may purchase habitat occupied by Bartram's ixia under its Conservation and Recreation Lands Program.

In Baker and adjoining Union Counties, Peacock and Peacock (1988) found abundant ixia in clearcuts on Clet Harvey Road, and the landowner found similar populations two miles south in 1990. Bartram's ixia is relatively secure in these counties if these areas remain commercial forest land.

In Bradford County, Bartram's ixia may similarly be secure in commercial forest land north of Starke and east of Hampton.

Prescribed burning of pinelands stimulates flowering of Bartram's ixia and is almost certainly desirable, if not essential for the well-being of this species. The 1990 session of the Florida legislature passed legislation intended to protect from liability suits landowners who practice prescribed burning in accordance with practices approved by the Florida Division of Forestry.

B. *Overutilization for commercial, recreational, scientific, or educational purposes.* Not applicable. The ixia may be of limited interest as a cultivated plant, and is readily grown under the proper conditions in containers (E. Geiger, in litt. 1989) or naturalized in a bog garden (R. McCartney, Woodlanders, Inc., Aiken, SC, in litt. 1989).

C. *Disease or predation.* Not applicable.

D. *The inadequacy of existing regulatory mechanisms.* Bartram's ixia is listed as endangered (as *Sphenostigma coelestinum*) by the Preservation of Native Flora of Florida Act (Section 581.185–187, Florida Statutes), which regulates taking, transport, and sale of plants but does not provide habitat protection. Florida's regional planning councils can require protection of state-listed plants in Developments of Regional Impact, and counties are encouraged to provide for conservation of such plants in their state-mandated comprehensive plans. Listing under the Endangered Species Act would have offered additional protection through Sections 7 and 9, and through recovery planning, although Section 7 consultations for plants are rare. Opposition to listing by the forest industry, if accompanied by similar opposition to recovery measures, could render recovery planning nearly meaningless unless it were accompanied by government land acquisition.

E. *Other natural or manmade factors affecting its continued existence.* A July 27, 1990, news story in the *Florida Times-Union* (Jacksonville) noted that changes in the capital gains provisions of the Federal tax laws in 1986 made timber ownership less attractive, encouraging conversion of forest land to real estate development. Robert Olszewski (Florida Forestry Association, pers. comm. 1990) subsequently confirmed that this is a genuine concern. This possible economic incentive for ixia habitat destruction will be considered in any future decisions with respect to listing of this species.

The Service carefully assessed the best scientific and commercial information available regarding the past, present, and future threats faced by Bartram's ixia in determining to withdraw this proposed rule. The withdrawal is based on the ixia's likelihood of remaining abundant in commercial forest land, combined with a good likelihood of State acquisition of some habitat for this plant, and the possibility that the Florida Department of Community Affairs will require effective conservation of this plant (as a state-listed species) as a condition of approving development projects or county comprehensive plans.

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Author

The primary author of this notice is David Martin (See **ADDRESSES** section).

Authority

The authority for this action is the Endangered Species Act of 1973 (16 U.S.C. 1531–1544).

List of Subjects in 50 CFR Part 17

Endangered and threatened species, Exports, Imports, Reporting and recordkeeping requirements, and Transportation.

Dated: October 24, 1990.

Richard N. Smith,

Acting Director, Fish and Wildlife Service.

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